3.5 PUBLIC AND PERSONAL COMMUNICATIONS

*A multistep, multidirectional process in which messages are disseminated to a broad, and sometimes undifferentiated, audience through complex networks of active transmitters.*

[*https://www.google.com/webhp?hl=en&tab=ww#hl=en&safe=active&tbo=d&tbs=dfn:1&spell=1&q=public+communications&sa=X&ei=fmW3UJHuGI768QTozoDwDg&ved=0CC0QBSgA&bav=on.2,or.r\_gc.r\_pw.r\_qf.&fp=2d9faa7223604870&bpcl=38897761&biw=792&bih=787*](https://www.google.com/webhp?hl=en&tab=ww#hl=en&safe=active&tbo=d&tbs=dfn:1&spell=1&q=public+communications&sa=X&ei=fmW3UJHuGI768QTozoDwDg&ved=0CC0QBSgA&bav=on.2,or.r_gc.r_pw.r_qf.&fp=2d9faa7223604870&bpcl=38897761&biw=792&bih=787)

*Use of wireless communications to extend telephone service to a person, regardless of location, rather than to a fixed location*

[*https://www.google.com/webhp?hl=en&tab=ww#hl=en&safe=active&tbo=u&q=personal+communications&tbs=dfn:1&sa=X&ei=U2W3UNxuiOjyBMSMgbAP&ved=0CC0QkQ4&bav=on.2,or.r\_gc.r\_pw.r\_qf.&fp=1c0c1963aa455624&bpcl=38897761&biw=792&bih=787*](https://www.google.com/webhp?hl=en&tab=ww#hl=en&safe=active&tbo=u&q=personal+communications&tbs=dfn:1&sa=X&ei=U2W3UNxuiOjyBMSMgbAP&ved=0CC0QkQ4&bav=on.2,or.r_gc.r_pw.r_qf.&fp=1c0c1963aa455624&bpcl=38897761&biw=792&bih=787)

Over time technology developers have produced an increasing number of mobile devices that enable people to communicate anytime, anyplace, anywhere. These technologies have changed the way people behave and think. Social and ethical impacts are the health implications of mobile devices, unauthorized access to wireless networks, interception of communications, storage of personal communications for security purposes and tracking of people.

It concepts:

* PDAs
* GPS
* Cell phones/mobile phones

Services:

* Accessing, distributing and sharing text, pictures, video, audio
* Synchronization of information between portable systems, desktops, and servers
* Videoconferencing
* Remote access: teleworking, distance learning (online classes)
* Telephony: VOIP voice over internet protocol

3.6 MULTIMEDIA/ DIGITAL MEDIA

*An extension of hypertext allowing the provision of audio and video material cross-referenced to a computer text*

[*https://www.google.com/webhp?hl=en&tab=ww#hl=en&safe=active&sa=X&tbo=u&q=multimedia&tbs=dfn:1&ei=oWW3UKrtNI2K9QSn2YCwBg&ved=0CC0QkQ4&bav=on.2,or.r\_gc.r\_pw.r\_qf.&fp=1c0c1963aa455624&bpcl=38897761&biw=792&bih=787*](https://www.google.com/webhp?hl=en&tab=ww#hl=en&safe=active&sa=X&tbo=u&q=multimedia&tbs=dfn:1&ei=oWW3UKrtNI2K9QSn2YCwBg&ved=0CC0QkQ4&bav=on.2,or.r_gc.r_pw.r_qf.&fp=1c0c1963aa455624&bpcl=38897761&biw=792&bih=787)

*Refers to any type of information in digital format including computer-generated text, graphics and animations, as well as photographs, animation, sound and video.*

[*https://www.google.com/webhp?hl=en&tab=ww#hl=en&safe=active&tbo=d&tbs=dfn:1&sclient=psy-ab&q=digital+media&oq=digital+media&gs\_l=serp.3..0i20j0j0i20j0l7.46818.48630.6.48661.13.5.0.0.0.0.1125.1812.0j1j2j7-1.4.0.les%3Bepsugrer.1.0.0...1.1.Aa-Io3lXE1A&pbx=1&bav=on.2,or.r\_gc.r\_pw.r\_qf.&fp=2d9faa7223604870&bpcl=38897761&biw=792&bih=787*](https://www.google.com/webhp?hl=en&tab=ww#hl=en&safe=active&tbo=d&tbs=dfn:1&sclient=psy-ab&q=digital+media&oq=digital+media&gs_l=serp.3..0i20j0j0i20j0l7.46818.48630.6.48661.13.5.0.0.0.0.1125.1812.0j1j2j7-1.4.0.les%3Bepsugrer.1.0.0...1.1.Aa-Io3lXE1A&pbx=1&bav=on.2,or.r_gc.r_pw.r_qf.&fp=2d9faa7223604870&bpcl=38897761&biw=792&bih=787)

Involves the use and integration of media products that are available online or offline.

This topic gives students references to technologies that make information accessible through different media and online services. This topic talks about the emphasis on practical work, using the tools in order to evaluate their effectiveness in various scenarios. Some of the social and ethical issues about the topic about multimedia/digital media could include copyright rules, intellectual property, and current practices and policies used to grant permission for use.

Components

Text

-Text-processing software

- Formatting: page layout, fonts, headers and footers

- File formats: PDF, RTF, and TXT

-typography

Graphics, images and animations

* Software types: albums, animated, 3D, photo editing, photo casting, simulation
* Color depth
* Layers, grouping, division, alignment
* Resolution, pixels, dots per inch
* File formats: JPG, GIF, TIF
* Computer-generated imagery CGI

Audio

* Digital audio: MIDI, MPEG, video CODECs

Video

* Video-editing software, vidcasts and special effects

3.7 DATABASES

*A structured set of data held in a computer, esp. one that is accessible in various ways*

<https://www.google.com/webhp?hl=en&tab=ww#hl=en&safe=active&tbo=d&tbs=dfn:1&spell=1&q=database&sa=X&ei=Ema3UKnEJJPc8ASY6YDgDw&ved=0CC0QBSgA&bav=on.2,or.r_gc.r_pw.r_qf.&fp=2d9faa7223604870&bpcl=38897761&biw=792&bih=787>

Databases lie at the heart of most IT systems; they enable organizations to maintain accurate and comprehensive records. The social and ethical issues of databases could be the rights of individuals with respect to the storage and potential sale of their personal data or the ease of data mining and data matching.

It concepts:

-table

-Field, data types, key field/primary key, secondary key

-Record

-Flat-tile databases, relational database, normalization

- Databases management system

-specialized databases: web data bases, online encyclopedias

Techniques

* Table
* Field, data types, key field/primary key, secondary key
* Record
* Linking tables to create a relational database
* Data maintenance: changing, editing, deleting records
* Data entry form
* Report generation
* Creating and editing simple macros
* Mail merge

3.8 SPREADSHEETS, MODELLING AND SIMULATIONS

*A computer program used chiefly for accounting, in which figures arranged in the rows and columns of a grid can be manipulated and used in calculations*

<https://www.google.com/webhp?hl=en&tab=ww#hl=en&safe=active&tbo=d&tbs=dfn:1&sclient=psy-ab&q=spreadsheets&oq=spreadsheets&gs_l=serp.3..0j0i20l2j0l7.63678.66177.8.66240.12.11.0.0.0.0.485.2546.1j3j3j2j1.10.0.les%3Bepsugrer.1.0.0...1.1.MrQJAZCx-Rg&pbx=1&bav=on.2,or.r_gc.r_pw.r_qf.&fp=2d9faa7223604870&bpcl=38897761&biw=792&bih=787>

*Use (esp. a system or procedure) as an example to follow or imitate*

<https://www.google.com/webhp?hl=en&tab=ww#hl=en&safe=active&tbo=d&tbs=dfn:1&sclient=psy-ab&q=modelling&oq=modelling&gs_l=serp.3..0j0i20j0j0i20j0l6.32089.33401.9.33463.9.7.0.0.0.0.297.1358.0j2j4.6.0.les%3Bepsugrer.1.0.0...1.1.fH0_o8PGXyU&pbx=1&bav=on.2,or.r_gc.r_pw.r_qf.&fp=2d9faa7223604870&bpcl=38897761&biw=792&bih=787>

*The act of imitating the behavior of some situation or some process by means of something suitably analogous (especially for the purpose of study or personnel training)*

<https://www.google.com/webhp?hl=en&tab=ww#hl=en&safe=active&tbo=d&tbs=dfn:1&sclient=psy-ab&q=simulations&oq=simulations&gs_l=serp.3..0i20j0j0i20j0l7.37088.39228.10.39275.11.10.1.0.0.0.250.1702.1j3j5.9.0.les%3Bepsugrer.1.0.0...1.1.lk4Ykwz9hhc&pbx=1&bav=on.2,or.r_gc.r_pw.r_qf.&fp=2d9faa7223604870&bpcl=38897761&biw=792&bih=787>

Since our world has become so technologically advanced, new technology is allowing use to test “what-if” scenarios and create simulations and models of real world events.

Using spreadsheets you can use the “what-if” scenario to display and look at potential financial details of businesses. Modeling and simulations can be used to recreate or predict the conditions that may result from an event social and ethical impacts could be not being able to replicate the real world, and ethical issues may rise during the development of the model.

It concepts:

* Cell types: text, number, date, currency, hyperlinks
* Types of charts
* Formatting and presentation: text, background, paragraphs, pages
* Data validation, verification and testing
* Functions: math’s, text, logic, date
* Protection or sheets and workbooks, cell locking
* Advanced functions
* Worksheets modeling “what-if” analysis